



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
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4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

October 13, 1983

Mr. W. Don Quigley  
Oil and Mineral Consultant  
57 West South Temple, Suite 440  
Salt Lake City, Utah 84101

RE: Completion of the Initial Mining  
and Reclamation Plan Review for  
the North Lily Project  
Lee Mining Company  
PRO/023/007  
Juab County, Utah

Dear Mr. Quigley:

The Division has completed the initial review of the Mining and Reclamation Plan (MRP) for the North Lily Project proposed by Lee Mining Company. It was conducted pursuant to Title 40-8-13 of the Utah Mined Land Reclamation Act, UCA 1953. Additional information will need to be submitted in order to complete the plan. Please read the enclosed review document and submit the requested information at your convenience. Should you wish to set up a meeting to discuss the items mentioned, please call either Tom Tetting or myself.

The Division has also made an inspection of the proposed site area in cooperation with Mr. Doug Lee on October 12, 1983 and discussed several areas of concern with him. Many questions have been satisfied due to the visit and his kind cooperation. Thanks are extended for expediting the review process.

One final concern which was not included in the review itself is as follows; the Division cannot maintain the entire plan as confidential as requested. Pursuant to Title 40-8-12(2) of the Act, you may request portions of it to be held as confidential. Please clarify the issue further.

Sincerely,

JAMES W. SMITH, JR.  
COORDINATOR OF MINED LAND DEVELOPMENT

JWS/btb

cc: Doug Lee  
Calvin Sudweeks, Department of Health  
D. Hansen, Division of Water Rights  
T. Tetting, DOGM  
S. Storrud, DOGM  
E. Hooper, DOGM  
L. Kunzler, DOGM

## MINING AND RECLAMATION PLAN REVIEW

Lee Mining Company  
North Lily Project  
PRO/023/007, Juab County, Utah

October 13, 1983

The following Rules and Regulations of the Mined Land Reclamation Act, Title 40-8, UCA 1953, will still need to be addressed:

### Rule M-3(1)

Maps, cross-sections and/or plans which clearly delineate the scale and relationship of the five(?) acre mining and mill sites must be provided in accordance with the design of this Rule. (The Division's site visit of October 12, 1983 noted that a larger area exists which may be affected. Areas which contain tails which will be used will become Lee Mining Company's responsibility for reclamation. See Rule M-10[9].) Areas which will not be utilized adjacent to the mine plan area and which the applicant wishes to avoid during the operation should be clearly defined on the map and marked in the field, e.g., borrow areas, slag piles, waste rock dumps, etc. Such basic design items as the tailing dam and pond must be included. Please elaborate upon the designs.

The applicant should submit final reclamation configurations of the tailing dump area (e.g., cross-sections). The floatation plan says 4:1 final slopes whereas the Ex-Anaconda Plan says 2.5:1. Or is this slope (2.5:1) to be omitted as with the Heap Leach Plan?

A map clearly showing roads with typical cross-section showing crowning, any diversion ditching, culverts, arrows indicating drainage flow and sedimentation retaining structures should be submitted.

### Rule M-3(1)(d)

The applicant should submit on the Rule M-3(1) map, the locations of any lakes, streams or any body of water, roads, buildings, transmission lines on the land affected and within 500 feet of the exterior limits of the land affected. A scale of 1:200 would be ideal.

### Rule M-3(1)(e)

The applicant must show the drainage plan on and away from all areas affected. Such plan must show directional flow of water, and constructed drainageways, natural waterways and discharge structures and streams.

### Rule M-3(1)(f)

Please show the general location, if any, of core or well holes and present status. Also, indicate on the map the depth of waterbearing strata and any toxic material encountered.

Rule M-3(1)(h)

If applicable, describe any water that will be disposed of, giving in general terms expected acid or salt content.

Rule M-3(2)(e)

On page 9 of Form MR-1, the applicant states that revegetated areas will be subject to livestock and wildlife grazing and that vegetation protection measures will be used. Then, on page 16 of the Mining and Reclamation Plan (MRP), the applicant states that affected areas will not be subject to wildlife or livestock grazing and that no vegetation protection is needed. Please clarify this contradiction. If areas are in need of vegetation protection, please discuss how this will be accomplished.

On page 15 of the MRP, the applicant has indicated that seed will be drilled and broadcast. Please provide the approximate acreage that will be seeded with each method or, if only one method is to be used, please clarify which one.

To help assure that a self-sustaining, diverse vegetative cover is established (refer to Rule M-10[12]), the following revisions to the seed mix on page 16 of the MRP should be considered:

1. Add Palmer Penstemon, Western Yarrow and Antelope Bitterbrush.
2. Use the following rates for broadcast seeding:

Crested wheatgrass - 3 lbs Pure Live Seed (PLS)/ac  
Western wheatgrass - 6 lbs PLS/ac  
Indian ricegrass - 4 lbs PLS/ac  
Palmer penstemon - 1/2 lb PLS/ac  
Western yarrow - 1/4 lb PLS/ac  
Yellow sweetclover - 3 lbs PLS/ac  
Alfalfa - 3 lbs PLS/ac  
Big sagebrush - 1/2 lb PLS/ac  
Rubber rabbitbrush - 1/2 lb PLS/ac  
Antelope bitterbrush - 3 lbs PLS/ac

TOTAL - 23 3/4 PLS/ac

(use 1/2 of this rate for drill seeding)

3. Seeding should be done in late fall, just prior to winter snowfall.

Rule M-3(5)(c)

The applicant must describe if flow sealing of any core or well holes (if applicable) will be accomplished.

Rule M-5

Further information is needed to calculate (itemize) a surety estimate. The figure of \$40,000.00 provided may be accurate but the details of how it was derived are needed to substantiate it. An estimate form has been attached to this review for your information. Such work as an itemization of hourly bulldozer, grader, truck, loader, etc., time is useful; so are demolition costs for all facilities constructed (salvage value is not accepted for these calculations).

Rule M-10

The variances requested for Rule M-10(7) and M-10(10) are too broad. Specific information should be provided which addresses and details the exact intentions of the requests. No attempt will be made by the Division to enforce provisions of these Rules where no applicability is seen, however.

Rule M-10(2)(d)(3)/Rule M-3(2)(c)

Have turnouts, road construction additions or other traffic considerations been discussed with the Utah Department of Transportation or the County concerning the effects of the operation on State Highway 6-50 or other county roads?

Where will appropriate warning signs and/or fencing be installed? Road building activity on-site should be described as to the extent and type planned and location as per indications on page 10 of the March 1982 Draft.

Rule M-10(6)

A spill prevention and control plan (SPCP) must be designed or otherwise indicate how such items as fuels, waste oil, caustic soda, cyanide, etc., will be maintained, stored and disposed.

The area under the old ore tailings pile must be sampled and chemical and physical analyses conducted to insure that this material will not be toxic and can indeed support vegetation.

A commitment to sample the new slurry pile must be made, and to have chemical and physical analyses conducted to provide information on possible toxicity. If toxic materials are found, a layer of nontoxic soil material must be spread before application of topsoil.

Compaction of the slurry pond may cause a hard layer below the topsoil that will not allow root penetration to occur and hinder revegetation efforts.

Rule M-10(9)

At present, the Division is unaware of any authorized historical significance being attached to the site. In fact, communication with the State Historical Preservation Office has led the Division to understand that no further historical interest exists. Therefore, unless substantiation of claims can be made, all redisturbed areas will need to be treated responsibly and reclaimed (reference page 5 of the March 1982 Draft MRP).

Rule M-10(12)(2)(a)

The applicant must provide a description of the methods used to determine vegetation cover. Also, the ranges in vegetative cover reported (0-60 percent for pinyon and juniper and 20-80 percent for sage- and rabbitbrush) are not acceptable. The applicant should report the average of several samples using a professionally accepted method and approved by the Division.

More detail as to monitoring procedures for revegetated areas is needed. This should include monitoring methods, timing and duration of monitoring and methods of determining whether or not the success standard has been achieved.

Rule M-10(14)

The volume of stockpiled topsoil quoted in Form MR-1 does not match that which has been proposed for removal in the Mining and Reclamation Plan (MRP). The applicant must provide the total acreage of new disturbance and the volume of topsoil that will be removed and stored.

The depth of redistributed topsoil proposed for reclamation has been quoted at two different depths. The applicant must indicate the depth of topsoil that will be used for reclamation.

The applicant should provide the results of the soils tests quoted on page 14 of the MRP.